

Kingdom of Saudi Arabia

**The National Commission for Academic Accreditation &
Assessment**

Course Specification

Revised March 2007

Course Specification

For Guidance on the completion of this template, please refer to Internal Quality Assurance Arrangements of Handbook 2

Institution	Al Yamamah University
College/Department :	CCIS (mathematics and Statistics Department)

A Course Identification and General Information

1. Course title and code:	STT-202
2. Credit hours	3
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)	COBA AND CCIS Program
4. Name of faculty member responsible for the course:	Ms. Shameem Tahseen
5. Level/year at which this course is offered	The Second Academic Year
6. Pre-requisites for this course (if any)	STT-102 Introduction to Statistics
7. Co-requisites for this course (if any)	
8. Location if not on main campus	Offered at Main Campus of the College

B Objectives

1. Summary of the main learning outcomes for students enrolled in the course.

Emphasis will be given on the understanding of the nature of randomness of real world problems, the formulation of statistical methods by using intuitive arguments and thereby making meaningful decisions.

2. Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)

SPSS AND EXCEL is used concurrently with the material.

C. Course Description (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

1 Topics to be Covered		
Topic	No of Weeks	Contact hours
6.1 The Elements of a Test of Hypothesis 6.2 Large-Sample Test of Hypothesis about a Population Mean 6.4 Small-Sample Test of Hypothesis about a Population Mean 6.5 Large-Sample Test of Hypothesis about a Population Proportion	3	9
7.2 Comparing Two Population Means: Independent Sampling 7.4 Comparing Two Population Proportions: Independent Sampling 7.5 Determining the Sample Size	3	9
8.1 Elements of a Designed Experiment 8.2 The Completely Randomized Design: Single Factor 8.3 Multiple Comparisons of Means	2	6
9.2 Testing Category Probabilities: One-Way Table 9.3 Testing Category Probabilities: Two-Way Table	2	6

10.2 The Least Squares Approach 10.6 The Coefficient of Correlation 10.7 The Coefficient of Determination 10.8 Using The Model for Estimation and Prediction	2	6
11.1 Multiple Regression Models 11.2 The First Order Model 11.3 Inferences about β -Parameters 11.4 Using The Model for Estimation and Prediction	2	6

2 Course components (total contact hours per semester):			
Lecture: 45 lectures	Tutorial:	Practical/Fieldwork /Internship:	Other: Labs

3. Additional private study/learning hours expected for students per week. (This should be an average :for the semester not a specific requirement in each week)

<p>4. Development of Learning Outcomes in Domains of Learning</p> <p>For each of the domains of learning shown below indicate:</p> <ul style="list-style-type: none"> • A brief summary of the knowledge or skill the course is intended to develop; • A description of the teaching strategies to be used in the course to develop that knowledge or skill; • The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.
a. Knowledge
<p>(i) Description of the knowledge to be acquired</p> <p>This course is concerned with providing students with an understanding and ability to apply: (1) basic inferential procedures, (2) regression analysis, (3) statistical process control, and (4) experimental design. The methods to be covered have been selected for their relevance to managerial decision making and problem-solving.</p>
<p>(ii) Teaching strategies to be used to develop that knowledge</p> <p>This knowledge will be imparted via a combination of formal lectures, group discussion and assignments</p>

<p>(iii) Methods of assessment of knowledge acquired</p> <p>Assessments would include quizzes, assignments, and exams.</p>
<p>b. Cognitive Skills</p>
<p>(i) Cognitive skills to be developed</p> <p>Learning how to face and solve problems in the future studies that need statistics. Learning how to think using mathematical logic.</p>
<p>(ii) Teaching strategies to be used to develop these cognitive skills</p> <p>These skills will be developed via a combination of formal lectures (which develop practices skills), and exercises (which help students to develop their analytical and critical thinking Skills).</p>
<p>(iii) Methods of assessment of students cognitive skills</p> <p>Continuous assessments during the semester such as quizzes, assignments, class participation, and exams</p>
<p>c. Interpersonal Skills and Responsibility</p>
<p>(i) Description of the interpersonal skills and capacity to carry responsibility to be developed</p> <p>Looking to develop logical skills in Statistics as well as ability to have the skills needed to solve successfully the Statistical problems associated with the main subjects of this course.</p>
<p>(ii) Teaching strategies to be used to develop these skills and abilities</p> <p>Formal lectures, group discussions class room activities and assignments.</p>
<p>(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility</p> <p>Assessments include class participation of students, assignments and group discussions.</p>
<p>d. Communication, Information Technology and Numerical Skills</p>

<p>(i) Description of the skills to be developed in this domain.</p> <p>Numerical skills when the student solves the assignments. Group discussions skills are actively involved in the communication process.</p>
<p>(ii) Teaching strategies to be used to develop these skills</p> <p>Lectures, group discussions, activities and assignments</p>
<p>(iii) Methods of assessment of students numerical and communication skills</p> <p>Assessments would include class room discussion, participation of students in the class room and group discussions.</p>
<p>e. Psychomotor Skills (if applicable)</p>
<p>(i) Description of the psychomotor skills to be developed and the level of performance required</p> <p>Description of the psychomotor skills to be developed and the level of performance required learning how to analyze in details, and control their Statistical problems.</p>
<p>(ii) Teaching strategies to be used to develop these skills</p> <p>Teaching strategies to be used to develop these skills Lectures, group discussions class room participations.</p>
<p>(iii) Methods of assessment of students psychomotor skills</p> <p>Attendance, class room participation, punctuality, computing skills and ability to meet deadlines for activities during the semester.</p>

5. Scheduling of Assessment Tasks for Students			
Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	Assignment	0	1
2	Assignment	1	1
3	Assignment and Quiz	2	1+5
4	Assignment	3	1
5	Assignment	4	1
6	Assignment and Quiz	5	1+5

7	Assignment and Exam	6	1+20
8	Assignment	7	1
9	Assignment and Quiz	8	1+5
10	Assignment	9	1
11	Assignment	10	1
12	Assignment and Quiz	11	1+5
13	Assignment and Exam	12	1+20
14	Assignment	13	1
15	Assignment and Quiz	14	1+5
16	Exam	15	20
	(Additional assignments / presentations/ class room activities may be assigned carrying around 15 percent of overall assessment)		

D. Student Support

1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)

One to twenty-five students

E. Learning Resources

1. Required Text(s)

McClave, Statistics for Business and Economics, 10th ed. Prentice- Hall 2008.

2. Essential References

- 1) Introduction To Probability and Statistics, By William Mendenhall, Robert J. Beaver, Barbara M. Beaver, 12th ed., Published by Thomson Brooks/Cole.”
- 3) Business Statistics: A Decision Making Approach, by David F. Groebner, Published 2007 Pearson/Prentice Hall.
- 4) Business Statistics in Practice, by Bruce L Bowerman, Richard T O'Connell,

J B Orris, Published by McGraw-Hill 2007.
3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List) As mentioned above
4-.Electronic Materials, Web Sites etc http://LMS.alyamamah.edu.sa/

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Lecture rooms, laboratories, etc.) Lecture Rooms
2. Computing resources EXCEL, SPSS programs State of the art facilities available for students
3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list) The latest multi user version of SPSS is required.

G. Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching Course evaluation forms are filled by all students who attend the course
2 Other Strategies for Evaluation of Teaching YU Faculty Evaluation system is based upon continuous development and involves relevant strategies
3 Processes for Improvement of Teaching Educational philosophy at YU is based on continuous development and accordingly pedagogical methodologies are reviewed, discussed, developed and best teaching practices are adopted as per the requirements of modern education.
4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution) Samples of students' assignments and exams are collected every semester and reviewed from time to time as per MOHE standards.

5 Action planning arrangements for periodically reviewing course effectiveness and planning for improvement.

Feedback mechanisms and evaluations are discussed in meetings as per instructions of VP Academic Affairs Office and the entire process is planned accordingly, also keeping in view developments suggested by Quality Centre and QAC.